

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A liquid crystal display device comprising:

a first substrate;

a second substrate;

a liquid crystal layer sandwiched by the first and second substrates; and

wall structures supported by the first substrate and facing the liquid crystal layer
for dividing the liquid crystal layer into a plurality of liquid crystal regions,

wherein the wall structures surround and define the liquid crystal regions, each of
a plurality of the regions having a shape of a polygon having dulled corners as viewed
from above,

wherein liquid crystal molecules in the liquid crystal regions are aligned vertically
with respect to a surface of the wall structures, and an alignment direction of the liquid
crystal molecules in the liquid crystal regions with respect to side faces of the wall
structures in the corners changes continuously.

2. (Original) The device of claim 1, wherein the shape of the dulled corners is a
curve.

3. (Currently amended) The device of claim 1, wherein the shape of the dulled corners is a curve having a radius of curvature R , and the radius of curvature R has a relationship of $R > l_m$ wherein l_m denotes a molecule length of the liquid crystal molecules in the liquid crystal regions.

4. (Original) The device of claim 3, wherein the radius of curvature R of the curve constituting the shape of the dulled corners has a relationship of $R \leq R'$ wherein R' denotes a radius of a circle circumscribing the polygon of the liquid crystal region.

5. (Original) The device of claim 1, wherein the wall structures are formed of a negative photosensitive resin.

6-7. (Canceled)

8. (Currently amended) The device of claim 1, ~~wherein the wall structures divide the liquid crystal layer into a plurality of liquid crystal regions, wherein the liquid crystal molecules in the plurality of liquid crystal regions are aligned axially symmetrically with respect to an axis vertical to a surface of the first substrate, and an alignment direction of liquid crystal molecules in the liquid crystal regions with respect to side faces of the wall structures in the corners changes continuously.~~

9. (Currently amended) A liquid crystal display device comprising:

a first substrate;

a second substrate;

a liquid crystal layer located between at least the first and second substrates;

at least one wall structure supported by the first substrate and facing the liquid crystal layer; [[and]]

wherein the wall structure surrounds a region having a shape of a polygon having dulled corners as viewed from above, so that an interior perimeter of a portion of the wall structure is in the shape of the polygon having dulled corners as viewed from above; and

wherein liquid crystal molecules in the liquid crystal region are aligned vertically relative to a surface of the wall structure , and an alignment direction of the liquid crystal molecules in the liquid crystal region with respect to side faces of the wall structures in the corners changes continuously.

10. (Currently amended) The device of claim 9, wherein the liquid crystal molecules ~~are located in the region and~~ are axially symmetrically aligned with respect to a vertical axis located in a central area of the region.

11. (Currently amended) The device of claim 9, wherein the liquid crystal molecules ~~in the region~~ are aligned axially symmetrically with respect to an axis vertical to a surface of the first substrate, ~~and an alignment direction of liquid crystal molecules in~~

~~the region with respect to side faces of the wall structure in corners of the region changes~~
continuously.

12. (New) A liquid crystal display device comprising:
a first substrate;
a second substrate;
a liquid crystal layer sandwiched by the first and second substrates;
wall structures supported by the first substrate and facing the liquid crystal layer,
wherein the wall structures are made of a transparent material, surround and define
regions having a shape of a polygon having dulled corners as viewed from above, and
wherein a height of the wall structures is about one third or less of a thickness of
the liquid crystal layer.

13. (New) The device of claim 12, wherein the shape of the dulled corners is a
curve.

14. (New) The device of claim 12, wherein the shape of the dulled corners is a curve
having a radius of curvature R , and the radius of curvature R has a relationship of $R > l_m$
wherein l_m denotes a molecule length of liquid crystal molecules in the regions.

15. (New) The device of claim 14, wherein the radius of curvature R of the curve constituting the shape of the dulled corners has a relationship of $R \leq R'$ wherein R' denotes a radius of a circle circumscribing the polygon of the regions.

16. (New) The device of claim 12, wherein the wall structures are formed of a negative photosensitive resin.

17. (New) The device of claim 12, wherein liquid crystal molecules in the regions are aligned vertical to side faces of the wall structures.

18. (New) The device of claim 12, wherein the wall structures divide the liquid crystal layer into a plurality of liquid crystal regions, wherein liquid crystal molecules in the plurality of liquid crystal regions are aligned axially symmetrically with respect to an axis vertical to a surface of the first substrate, and an alignment direction of liquid crystal molecules in the liquid crystal regions with respect to side faces of the wall structures in the corners changes continuously.

19. (New) A liquid crystal display device comprising:

a first substrate;

a second substrate;

a liquid crystal layer located between at least the first and second substrates;

at least one wall structure supported by the first substrate and facing the liquid crystal layer;

wherein the wall structure surrounds a region having a shape of a polygon having dulled corners as viewed from above, so that an interior perimeter of a portion of the wall structure is in the shape of the polygon having dulled corners as viewed from above;

wherein the wall structure is made of a transparent material; and

a height of the wall structure is about one third or less than a thickness of the liquid crystal layer.

20. (New) The device of claim 19, wherein liquid crystal molecules are located in the region and are axially symmetrically aligned with respect to a vertical axis located in a central area of the region.

21. (New) The device of claim 19, wherein liquid crystal molecules in the region are aligned axially symmetrically with respect to an axis vertical to a surface of the first substrate, and an alignment direction of liquid crystal molecules in the region with respect to side faces of the wall structure in corners of the region changes continuously.

22. (New) The liquid crystal display device of claim 12, wherein side faces of the at least one wall structure are inclined to a surface of the first substrate.

23. (New) The liquid crystal display device of claim 12, wherein an angle of side faces of the at least one wall structure and a surface of the first substrate is/are in a range of about 10 to about 90 degrees.

24. (New) The liquid crystal display device of claim 12, wherein a height of the at least one wall structure is no less than about 0.5 μm .